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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,375	04/16/2004	Yoshiaki Hirai	119470	8092
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OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER CHEUNG, VICTOR	
			ART UNIT 3714	PAPER NUMBER
			MAIL DATE 08/21/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/825,375

Applicant(s)

HIRAI, YOSHIAKI

Examiner

Victor Cheung

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/10/2007.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Applicant's response filed 06/07/2007 amended claims 1-3, 5-6, 8-9, 11, and 15-18.

Claims 1-18 are pending.

***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 17 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

A "data signal embodied in a carrier wave" is claimed. Data signals and carrier waves, even though the information encoded within them may be functional, do not fall under any of the four statutory categories set forth by 35 U.S.C. 101 or any of the three categories of nonstatutory subject matter currently specified by the Supreme Court.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 5 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re Claim 5: Claim 5 contains the limitation “a character capable of arriving earliest is shorter” in lines 5-6. The phrase is indefinite as each character is in fact “capable of” achieving that property. It is suggested that the phrase read as something similar to --a character is shorter--.

Re Claim 17: Claim 17 includes the limitation of “A computer-executable storage medium that receives a data signal embodied in a carrier wave, comprising information used for executing the method as claimed in claim 1.” It is unclear what is being claimed. The computer-executable storage medium is not encoded with anything, thus it is unclear how the method of claim 1 can be executed. A data signal is claimed; see 35 U.S.C. 101 rejection above.

Re Claim 17: Claim 17 claims a storage medium that receives data used for executing the method as claimed in claim 1. It is unclear if an apparatus or a method is being claimed.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 1-2, 4-5, 8-9, 12-13, 15, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rupert et al. (US Patent No. 6,558,258) in view of Rimoto (US Patent No. 6,503,144).

Re Claim 1: Rupert et al. disclose a game executing method for making a computer device execute a given game by generating an image of a game space, and for analyzing and outputting a power distribution of a character group in the game space, the character group comprising a plurality of characters movable in the game space, the method comprising setting a plurality of sample points in the game space (Col. 4, Lines 55-64), calculating a position of each of the plurality of characters at a time that each of the plurality of characters has maintained a current moving condition for a predetermined time (Col. 6, Lines 27-32), calculating the power distribution of the character group based on the sample points (Col. 6, Lines 60-65; Col. 4, Lines 58-64), and outputting a geographical power state of the game space based on the calculated power distribution according to a predetermined output method (Col. 8, Lines 47-49).

However, Rupert et al. do not specifically disclose calculating arrival times of the characters to the plurality of sample points from the calculated positions as starting points.

Rupert et al. teach that the Voronoi regions used are a collection of points that a character is closest to. The player may be closest in distance, or the player may be closest based on non-linear measurements such as momentum, speed, and direction (Col. 4, Lines 58-64; Col. 6, Lines 27-40).

Rimoto et al. teach a method of executing a game including determining the time required for each of the players to reach a specific point (Col. 2, Lines 25-27, 34-39).

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to calculate the arrival times of the characters to the plurality of sample points from the calculated positions as starting points. The Voronoi regions depict areas that the character is able to reach faster than any other character, i.e. it is the result of a comparison of the arrival times of the characters. Through calculating the arrival times of the characters, it can be more easily determined

which characters can reach an area faster, using a metric that takes into account the players ability to reach the point faster, instead of a linear metric such as distance.

Re Claim 2: Rupert et al., as modified by Rimoto et al., teach the limitations of claim 1, as discussed above.

Rupert et al. additionally teach taking into account values such as strength, agility, and speed attributes to more closely resemble the variations of a soccer game (Col. 9, Lines 42-60).

Re Claim 4: Rupert et al., as modified by Rimoto et al., teach the limitations of claim 1, as discussed above.

However, Rupert et al. do not specifically teach selecting a character of which the arrival time is to be calculated based on the distance from each of the plurality of set sample points to the calculated positions.

Rupert et al. teach the calculating the arrival time for each of the characters on the soccer pitch (as discussed above).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to select a character. By selecting a character, the character can then be the object of any determinations or calculations that must be performed.

Re Claim 5: Rupert et al., as modified by Rimoto et al., teach the limitations of claim 1, as discussed above.

However, Rupert et al. do not specifically teach calculating a predominance degree or calculating the power distribution based on the calculated predominance degree.

Rupert et al., as modified by Rimoto et al., do teach calculating the arrival time and calculating the power distribution based on the arrival time (as discussed above).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to calculate a predominance degree and then calculate the power distribution using the predominance degree. Because the predominance degree is inversely linked with the arrival time, where the predominance degree is higher as the arrival time of a character capable of arriving earliest is shorter, it is just a mathematical manipulation of the arrival time. Both values give the same result, but one value is favorable as a lower number, and the other value is favorable as a higher number. By using a value that increases as a situation becomes more favorable, the value is more intuitively recognized.

Re Claim 8: Rupert et al., as modified by Rimoto et al., teach the limitations of claim 1, as discussed above.

Rupert et al. additionally teach that the character group includes a plurality of character groups and calculating the power distribution for each of the plurality of character groups (Fig. 1; Col. 2, Lines 1-13; Col. 6, Lines 4-9; Col. 8, Line 47-51).

Re Claim 9: Rupert et al., as modified by Rimoto et al., teach the limitations of claim 8, as discussed above.

Rupert et al. teach calculating the power distribution for each of the plurality of character groups (Col. 6, Lines 4-9).

Re Claim 12: Rupert et al. teach the limitations of claim 1, as discussed above.

Rupert et al. additionally teach identifiably displaying a non-power area of the character group as a space area on the image of the game space based on the calculated power distribution (Fig. 1). Power areas of a character group are determined and displayed; non-power areas of a character group are subsequently power areas of the alternate character group.

Re Claim 13: Rupert et al., as modified by Rimoto et al., teach the limitations of claim 12, as discussed above.

Rupert et al. additionally teach that the plurality of characters, setting the plurality of sample points, calculating the power distribution, and identifiably displaying a portion of the space area on a terrain (Figs. 1, 5, 6; Col. 2, Lines 8-13).

Re Claims 15 and 18: Rupert et al., as modified by Rimoto et al., teach the gaming method of claim 1, as discussed above.

Rupert et al. additionally teach an information storage medium having information recorded thereon, wherein when the information is loaded onto an operating apparatus, the operating apparatus executes the method as claimed in claim 1 (Col. 3 Line 63-Col. 4 Line 13).

Re Claims 17: Rupert et al., as modified by Rimoto et al., teach the gaming method of claim 1, as discussed above.

Rupert et al. additionally teach that the information for performing the gaming method can be obtained over a network or an electronic channel (Col. 4, Lines 4-13).



Art Unit: 3714

8. Claim 3, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rupert et al. (US Patent No. 6,558,258) and Rimoto et al. (US Patent No. 6,503,144), as applied to claim 1 above, and further in view of Ariano et al. (US Patent No. 3,874,669).

Re Claim 3: Rupert et al., as modified by Rimoto et al., teach the limitations of claim 1, as discussed above.

However, Rupert et al. do not specifically teach that from each calculated position, the respective character's arrival time to a sample point selected within a predetermined distance from the calculated position is calculated.

Rupert et al. teach the use of Voronoi cells, in which a Voronoi site is closer to every point in a Voronoi cell than any other Voronoi site (Col. 3, Lines 1-10)

Ariano et al. teach dividing a game space into a plurality of zones in which a character from each team is active (Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to calculate the arrival times within a predetermined distance from the calculated positions of each character. It is well known in the art that in the game of soccer/football that each character may be assigned a specific zone or region of the pitch and that physically and mathematically, one character cannot have an arrival time to a distant sample point than that of a character that is much closer to that sample point. Limiting a sample area to a predetermined distance from a calculated position creates a more realistic situation, as the arrival time would not need to be calculated for a distance much larger than the surrounding area of the character.

Re Claim 6: Rupert et al., as modified by Rimoto et al., teach the limitations of claim 1, as discussed above.

However, they do not specifically teach setting the plurality of sample points at a predetermined interval in the game space.

Ariano et al. teach dividing a game space into a plurality of zones and diving the zones in a grid (Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to set the plurality of sample points at a predetermined interval in the game space. By setting the plurality of sample points at a predetermined interval, the entire soccer pitch can be covered with sample points, and the positioning of the sample points can be set in an orderly pattern.

Re Claim 7: Rupert et al., as modified by Rimoto et al. and Ariano et al., teach the limitations of claim 6, as discussed above.

However, they do not specifically teach sectioning the game space into at least two kinds of a plurality of areas and setting the plurality of sample points in the plurality of sectioned areas.

Ariano et al. teach dividing a game space into a plurality of zones (Fig. 1).

Rupert et al. additionally teach that the analyses can be performed with different sets of players, with different geometric properties of the pitch and game (Col. 5, Lines 32-53; Col. 6, Lines 4-9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to section the game space and then set the plurality of sample points in the sectioned areas. By sectioning the game space, different rules and situations of the game can be applied, reducing the number of unnecessary calculations required.

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rupert et al. (US Patent No. 6,558,258) and Rimoto et al. (US Patent No. 6,503,144), as applied to claim 1 above, and further in view of Murata et al. (US Patent No. 5,735,743).

Re Claim 14: Rupert et al., as modified by Rimoto et al., teach the limitations of claim 1, as discussed above.

However, they do not specifically teach an output of a voice indicating a position of a space area corresponding to a non-power area of the character group and a voice indicating that the position of the space area is a space area.

Murata et al. teach a gaming machine which can execute play-by-play announcements by a sound generator (Col. 1, Lines 54-57; See also Fig. 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the play-by-play announcements of Murata et al. in the game of Rupert et al. By audibly announcing the game status, the player can be constantly updated of the situations in the game.

10. Claims 10-11 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rupert et al. (US Patent No. 6,558,258) and Rimoto et al. (US Patent No. 6,503,144) as applied to claim 1 above, and further in view of Takatsuka (US Patent No. 6,149,520).

Re Claim 10: Rupert et al., as modified by Rimoto et al., teach the limitations of claim 1, as discussed above.

Rupert et al. teach outputting the calculated power distribution (as discussed above), and storing the calculated power distribution (Col. 8, Lines 1-14).

However, they do not specifically teach outputting the stored power distribution.

Takatsuka teaches that graphical information can be stored, where the graphical information can be later read and displayed (Col. 4, Lines 51-60).

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to output the stored power distribution. Once stored, the stored power distribution serves no purpose to a player playing the gaming apparatus. Outputting the stored power distribution allows the player to review situations that may become pertinent in the future.

Re Claim 11: Rupert et al., as modified by Rimoto et al. and Takatsuka, teach the limitations of claim 10, as discussed above.

Rupert et al. additionally teach judging whether the calculated power distribution satisfies a predetermined storing condition and storing the calculated power distribution if the calculated power distribution satisfies the predetermined storing condition (Col. 8, Lines 1-14).

Re Claim 16: Note that as claimed, claim 16 sets forth a game apparatus with sections for executing the gaming method of claim 1.

Rupert et al., as modified by Rimoto et al., teach the limitations of claim 1, as discussed above. Rupert et al. also teach a computer game hardware system comprising a console (Fig. 2, Reference No. 102) comprising a processor (Fig. 2, Reference No. 110), a graphics processor (Fig. 2, Reference No. 116), and program code storage (Fig. 2, Reference No. 112) for executing the method of claim 1.

However, they do not specifically teach a point setting section, an inertia calculating section, an arrival time calculating section, and a distribution calculating section.

Takatsuka teaches a game apparatus for controlling a character in a video soccer game, including calculating a character's future position, calculating angles and distances between a character and the ball and an opponent character, including different sections for each of the processing and calculating method steps (Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a section of the processor of Rupert et al. be used for each method step. By having a section for each step that has to be calculated, the entire process can be pipelined and work faster and more efficiently.

### ***Response to Arguments***

11. Applicant's arguments, see page 14, filed 06/07/2007, with respect to the rejections of claims 1 and 16 under 35 U.S.C. 102 and 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Rupert et al. (US Patent No. 6,558,258) and Rimoto et al. (US Patent No. 6,503,144) as applied to claim 1, and further in view of Takatsuka (US Patent No. 6,149,520) as applied to claim 16.

However, note that regarding applicant's argument that Rupert et al. do not recognizing areas pertaining to a power of the character group, Rupert et al. do disclose that variations to the Voronoi diagrams can be made, including making designations towards a team's cells, giving the player the ability to see points that the team, as a whole, owns. (Col. 8, Lines 47-51).

Art Unit: 3714

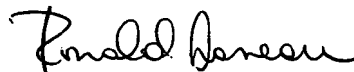
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor Cheung whose telephone number is (571) 270-1349. The examiner can normally be reached on Mon-Fri, 9-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VC  
Victor Cheung  
August 16, 2007

  
RONALD LANEAU  
PRIMARY EXAMINER  
8/20/07